Grain Transportation Report

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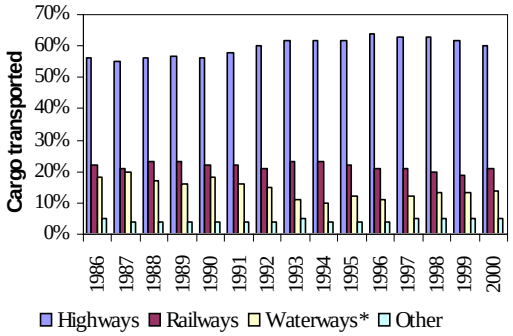
Contents

The next release is May 19, '05

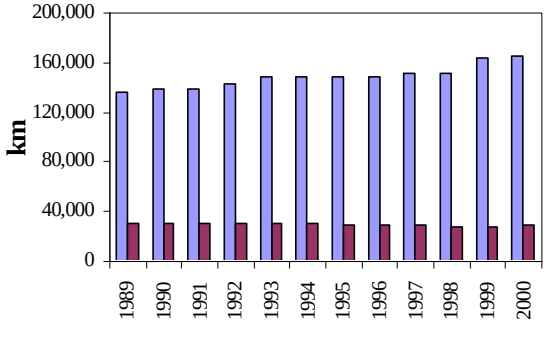
Brazilian Export Soybean Transport Indicator: Brazil, a major U.S. competitor in world grain markets, is the world's second largest soybean producer and exporter, after the United States. Soybean movements throughout Brazil depend on truck transportation. Trucks account for approximately 60 percent of the general cargo transportation in Brazil while rail and barge account for 20 and 15 percent, respectively (see figure 1). Brazilian highways cover more than five times the distance covered by Brazilian railways. As shown in figure 2, the trend has been to build new roads while rail kilometers have declined slightly.

Figure 1-- Highways accounted for 60 percent of total Brazilian cargo transported in 2000



*Waterways = coastal + river transportation
Source: Brazilian Mnistryof Transport, 2001

Figure 2--Brazil highway kilometers increase while rail declines



Source: Brazilian Ministry of Transport, 2002

Roads in Brazil vary in quality from freeways to dirt. Several states have privatized and improved major roads. New roads have high tolls and truckers often avoid them by using alternative routes (USDA, FAS, *GAIN* Report # BR3003). Grain is shipped predominantly by trucks with a capacity of 89,600 lb (40 metric tons). The truck freight market is not under government control; hence, freight prices are determined by supply and demand for the transport service. To negotiate efficiently, carriers and shippers must be aware of current shipping cost variables.

Inland waterways are considered to be the most economical means of moving bulk commodities. Consequently, Brazil has high expectations for projects such as the Madeira waterway system. It is anticipated that this waterway system will efficiently reduce transportation costs for grains produced in Brazil's Center West region.

To illustrate the behavior of the freight market in Brazil, the Brazilian Export Soybean Transportation Indicator, a quarterly publication, was designed. The indicator shows the cost of shipping soybeans from major production regions in Brazil to the ports and then to the European Union (EU), Brazil's major soybean export market. Origins considered in the Indicators comprise 18 regions in 8 states, which represent 84 percent of the total 2003 Brazilian soybean production (see figure 15 inside the report). These are the latest official statistical data available, following the classification used by the Brazilian Institute of Geography and Statistics – IBGE. Analysis of origins and destinations resulted in 24 routes, as shown in Figure 15 and Table 18. The exchange rate used was: 1U.S.$=2.6651 Reais. The first results obtained for the Indicator are illustrated in Table 19 and Figures 16 and 17. Truck freight rates correspond to actual values negotiated between shippers and carriers, including toll fees, but excluding insurance and taxes. The ports of Santos and Paranaguá are the preferred embarkation points, but the ports of Itaqui, Vitória, Ilhéus, São Francisco do Sul and Rio Grande can be considered good alternatives. For this report, the ports of Santos, Paranaguá, and Rio Grande, were selected as the major export originating points for shipments to the EU. Actual ocean freight rates were weighted by volume (Sistema de Informações de Fretes, SIFRECA, ESALQ – USP). *jvcaixet@esalq.usp.br; Delmy.Salin@USDA.gov*

Grain Transportation Indicators

Table 1--Grain transport cost indicators*

	Truck	Rail	Barge	Ocean	
Week ending				Gulf	Pacific
05/11/05	149	109	127	256	208
Compared with last week	↓	↑	↓	↑	↑

*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel ($/gallon); rail = nearby secondary rail market ($/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan ($/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads ($/bushel)

Commodity	Origin--destination	5/6/2005	4/29/2005
Corn	IL--Gulf	-0.49	-0.48
Corn	NE--Gulf	-0.62	-0.61
Soybean	IA--Gulf	-0.65	-0.65
HRW	KS--Gulf	-0.97	-0.83
HRS	ND--Portland	-1.48	-1.39

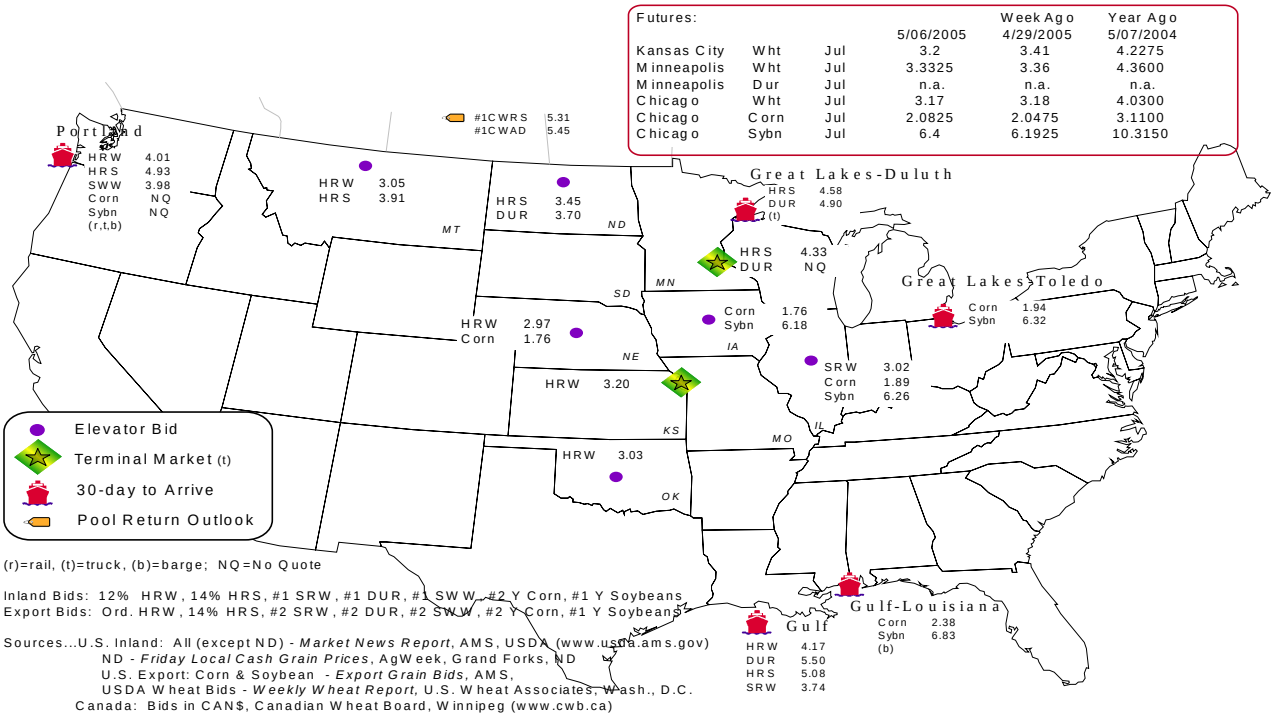
Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1

Grain bid summary



Rail Transportation

Table 3--Rail deliveries to port (carloads)*

Week ending	Mississippi Gulf	Texas Gulf	Cross-Border Mexico	Pacific Northwest	Atlantic & East Gulf	Total
05/04/2005[p]	193	1,669	1,965	4,220	48	8,095
04/27/2005[r]	131	1,206	2,108	4,676	103	8,224
2005 YTD	5,378	31,286	30,790	81,510	6,857	155,821
2004 YTD	3,658	41,995	17,738	75,897	3,471	142,759
2005 as % of 2004	147	74	174	107	198	109
Total 2004	10,475	92,073	67,992	209,625	10,986	391,151
Total 2003**	14,843	88,194	48,805	157,125	20,509	329,476

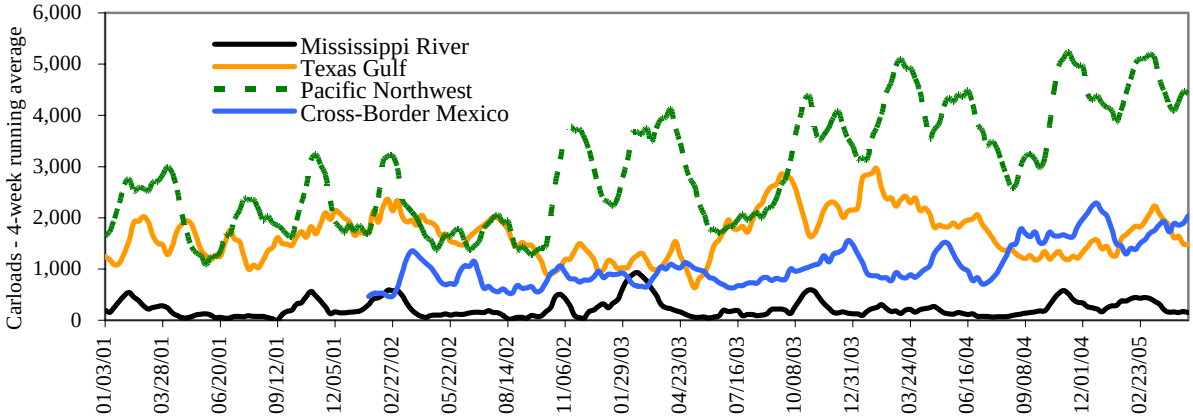
(*) Incomplete Data; as of 9/22/04, Cross-Border movements included; (**) Excludes 53rd week;YTD = year-to-date; p = preliminary data; r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

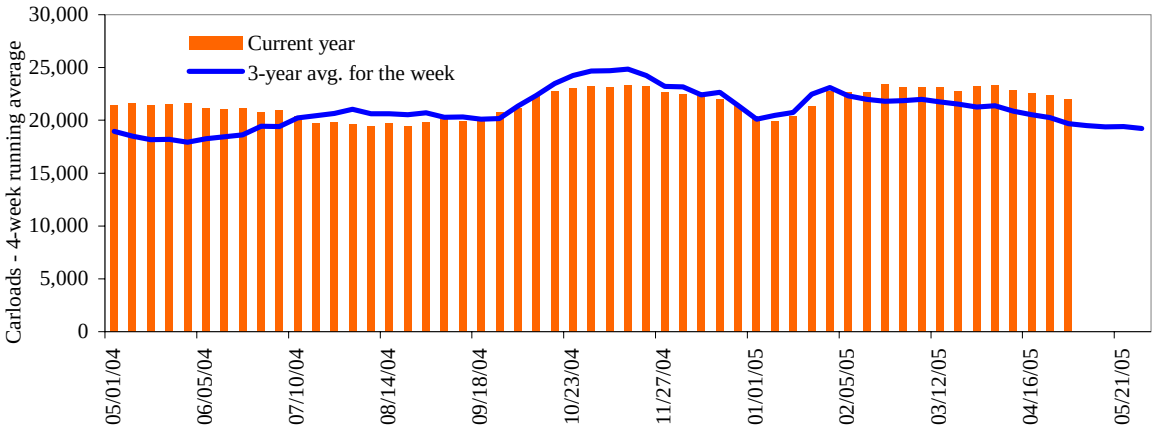
Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3

Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	East		West			U.S. total	Canada	
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
04/30/05	2,977	3,627	8,612	696	5,780	21,692	4,219	4,099
This week last year	2,351	2,601	9,005	463	6,820	21,240	5,166	3,955
2005 YTD	52,637	58,848	161,978	11,008	103,136	387,607	76,148	67,337
2004 YTD	50,051	56,104	158,676	9,231	113,219	387,281	81,036	60,503
2005 as % of 2004	105	105	102	119	91	100	94	111
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Rail car auction offerings, week ending 5/7/05 ($/car)*

Delivery for:	Jun. 05	Jul. 05	Aug. 05
BNSF[1]			
COT/N. grain	$0	$63	$88
COT/S. grain	$7	$84	$126
UP[2]			
GCAS/Region 1	no bid	$1	no offer
GCAS/Region 2	$1	$46	no offer

*Average premium/discount to tariff, last auction

[1]BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

[2]UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

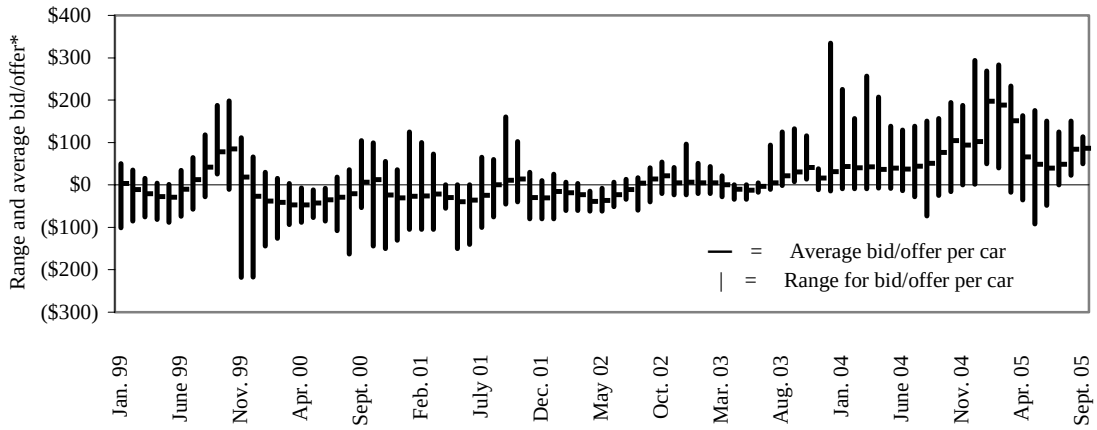
Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service or tariff for nonguaranteed service or through the secondary market.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4

Secondary rail car market, delivery month-year



*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

Average bid/offer is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Range for bid/offer shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market, week ending 5/7/05 ($/car)*

	Delivery period			
	Jun-05	**Jul-05**	**Aug-05**	**Sep-05**
BNSF-GF	$20	$59	$92	$100
Change from last week	$15	$21	$4	$25
UP-Pool	-$48	$17	$95	$113
Change from last week	-$20	-$16	$10	$0

*Average premium/discount to tariff, $/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,
Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

Table 7--Tariff rail rates for unit and shuttle train shipments*

Effective date: 5/2/2005	Origin region	Destination region	Rate/car	Rate/metric ton	Rate/bushel**
Unit train*					
Wheat	Chicago, IL	Albany, NY	$1,861	$20.51	$0.56
	Kansas City, MO	Galveston, TX	$1,920	$21.16	$0.58
	South Central, KS	Galveston, TX	$2,335	$25.74	$0.70
	Minneapolis, MN	Houston, TX	$2,420	$26.68	$0.73
	St. Louis, MO	Houston, TX	$2,245	$24.75	$0.67
	South Central, ND	Houston, TX	$3,484	$38.40	$1.05
	Minneapolis, MN	Portland, OR	$4,198	$46.27	$1.26
	South Central, ND	Portland, OR	$4,198	$46.27	$1.26
	Northwest, KS	Portland, OR	$4,266	$47.02	$1.28
	Chicago, IL	Richmond, VA	$2,002	$22.07	$0.60
Corn	Chicago, IL	Baton Rouge, LA	$2,510	$27.67	$0.70
	Council Bluffs, IA	Baton Rouge, LA	$2,370	$26.12	$0.66
	Kansas City, MO	Dalhart, TX	$1,965	$21.66	$0.55
	Minneapolis, MN	Portland, OR	$3,600	$39.68	$1.01
	Evansville, IN	Raleigh, NC	$1,791	$19.74	$0.50
	Columbus, OH	Raleigh, NC	$1,700	$18.74	$0.48
	Council Bluffs, IA	Stockton, CA	$3,606	$39.75	$1.01
Soybeans	Chicago, IL	Baton Rouge, LA	$2,455	$27.06	$0.74
	Council Bluffs, IA	Baton Rouge, LA	$2,315	$25.52	$0.69
	Minneapolis, MN	Portland, OR	$3,610	$39.79	$1.08
	Evansville, IN	Raleigh, NC	$1,791	$19.74	$0.54
	Chicago, IL	Raleigh, NC	$2,391	$26.36	$0.72
Shuttle Train*					
Wheat	St. Louis, MO	Houston, TX	$1,895	$20.89	$0.57
	Minneapolis, MN	Portland, OR	$3,948	$43.52	$1.18
Corn	Fremont, NE	Houston, TX	$2,665	$29.38	$0.75
	Minneapolis, MN	Portland, OR	$3,450	$38.03	$0.97
Soybeans	Council Bluffs, IA	Houston, TX	$2,785	$30.70	$0.84
	Minneapolis, MN	Portland, OR	$3,410	$37.59	$1.02

*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

**Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

Table 8--Tariff rail rates for U.S. bulk grain shipments to the U.S.-Mexico border

Effective date: 5/2/2005	**Origin state**	**Border crossing region**	**Train size**	**Rate/car** [1]	**Rate/metric ton**	**Rate/bushel****
Wheat	KS	Brownsville, TX	Shuttle	$2,742	$28.02	$0.76
	ND	Eagle Pass, TX	Shuttle	$5,399	$55.17	$1.50
	OK	El Paso, TX	Shuttle	$2,155	$22.02	$0.60
	OK	El Paso, TX	Unit	$2,241	$22.90	$0.62
	AR	Laredo, TX	Unit	$2,165	$22.12	$0.60
	IL	Laredo, TX	Shuttle	$2,970	$30.35	$0.83
	MT	Laredo, TX	Shuttle	$4,298*	$58.14	$1.58
	TX	Laredo, TX	Shuttle	$2,056	$21.01	$0.57
	MO	Laredo, TX	Unit	$2,622	$26.79	$0.73
	WI	Laredo, TX	Unit	$3,188	$32.57	$0.89
Corn	NE	Brownsville, TX	Shuttle	$3,104	$31.72	$0.80
	NE	Brownsville, TX	Unit	$3,537*	$36.14	$0.92
	IA	Eagle Pass, TX	Shuttle	$3,334	$34.07	$0.86
	MO	Eagle Pass, TX	Shuttle	$3,040*	$31.06	$0.79
	NE	Eagle Pass, TX	Shuttle	$3,440*	$35.15	$0.89
	IA	Laredo, TX	Unit	$3,258	$33.29	$0.84
Soybean	IA	Brownsville, TX	Shuttle	$2,880	$29.43	$0.80
	MN	Brownsville, TX	Shuttle	$3,176	$32.45	$0.88
	NE	Brownsville, TX	Shuttle	$2,688	$27.47	$0.75
	NE	Eagle Pass, TX	Shuttle	$2,765	$28.25	$0.77
	IA	Laredo, TX	Unit	$2,918	$29.82	$0.81

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

[1]Rates are based upon published tariff rates for high-capacity rail cars.

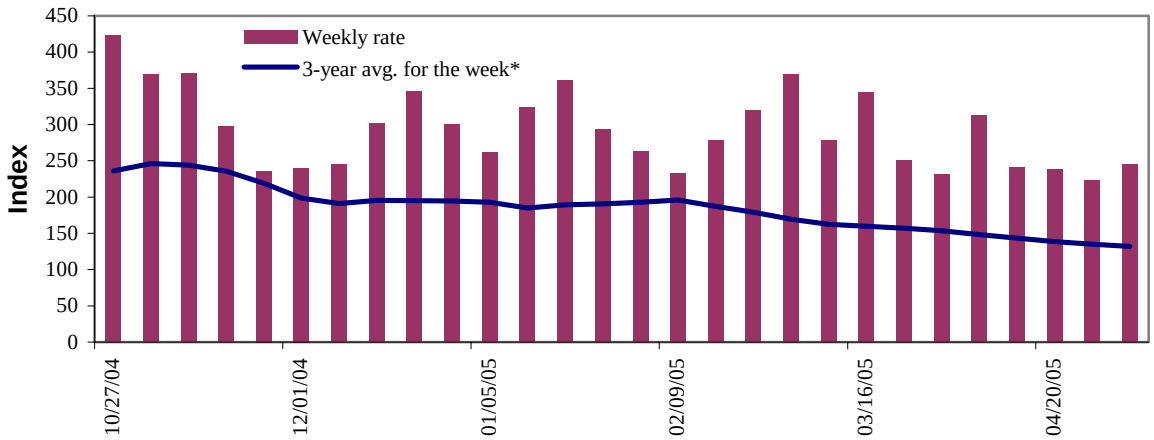
*High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

**Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

Sources: www.bnsf.com, www.uprr.com

Barge Transportation

Figure 5
Illinois River barge rate index - quotes



Note: Index = percent of tariff rate; *4-week moving average
Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 9--Barge rate quotes: southbound barge freight

Location	5/4/2005	4/27/2005	June '05	Aug. '05
Twin Cities	263	261	273	305
Mid-Mississippi	237	233	253	290
Illinois River	245	223	249	275
St. Louis	214	168	209	253
Lower Ohio	189	178	206	261
Cairo-Memphis	171	161	189	250

Index = percent of tariff, based on 1976 tariff benchmark rate
Source: Transportation & Marketing Programs/AMS/USDA

Calculating barge rate per ton:
(Index * 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Note: The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

Figure 6
Benchmark tariff rates

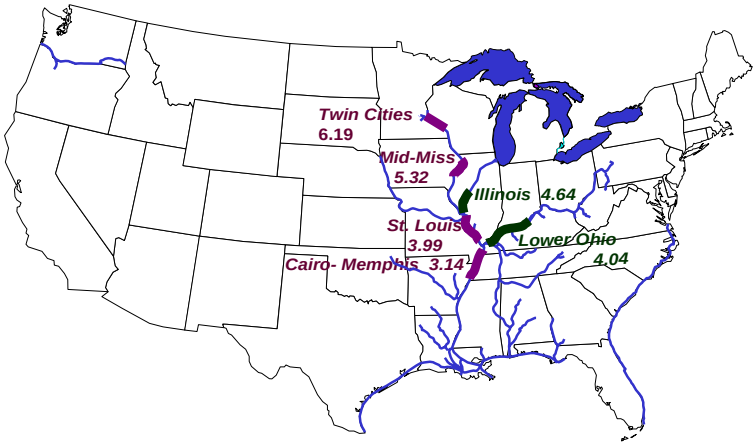
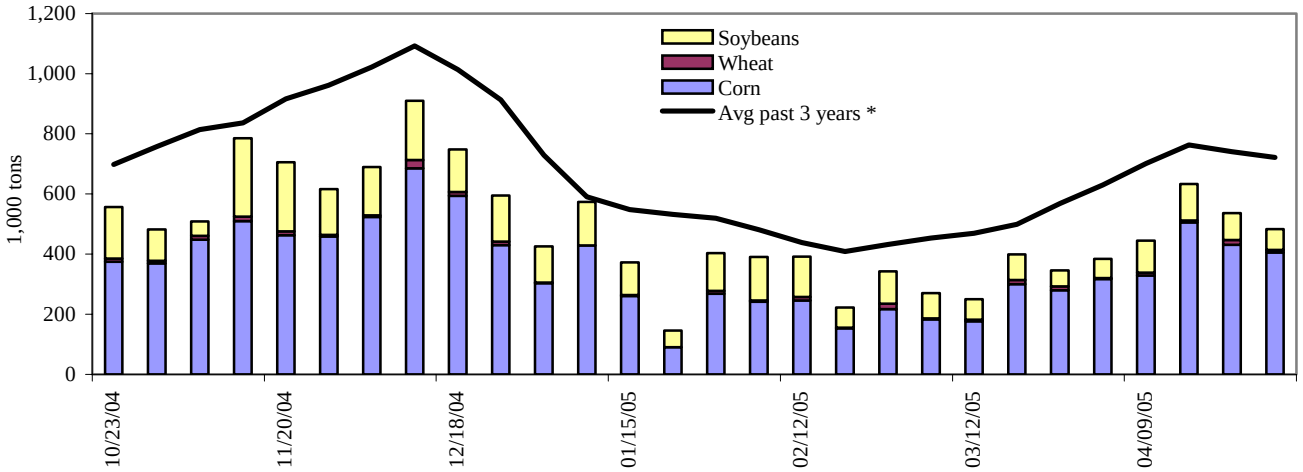


Figure 7

Barge movements on the Mississippi River (Locks 27 - Granite City, IL)



* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 4/30/2005	Corn	Wheat	Soybean	Other	Total
Mississippi River					
Rock Island, IL (L15)	120	6	29	8	163
Winfield, MO (L25)	252	8	52	5	316
Alton, IL (L26)	400	9	70	6	485
Granite City, IL (L27)	405	9	69	5	487
Illinois River (L8)	207	2	16	0	225
Ohio River (L52)	37	5	18	2	61
Arkansas River (L1)	0	18	7	0	25
2005 YTD	6,448	493	2,798	258	9,997
2004 YTD	7,644	864	1,954	280	10,742
2005 as % of 2004 YTD	84	57	143	92	93
Total 2004	26,235	2,701	6,784	843	36,563

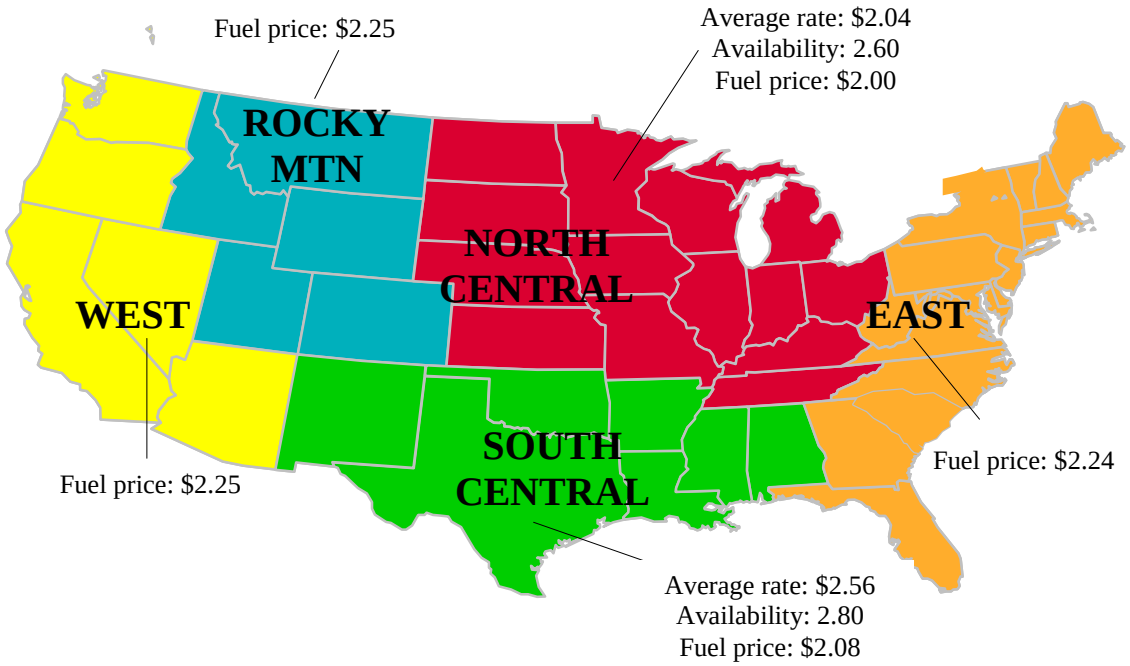
YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1. "Other" refers to oats, barley, sorghum, and rye.

Source: U.S. Army Corp of Engineers (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)

Note: Total may not add exactly, due to rounding

Truck Transportation

Figure 8
U.S. grain truck market advisory, 1st quarter 2005*



*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles
Note: Fuel prices are a quarterly average (unit per gallon)
Fuel price data source: Energy Information Administration, U.S. Department of Energy, www.eia.doe.gov

Table 11--U.S. grain truck market overview, 1st quarter 2005

Region/commodity*	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
	Rate per mile			*Rating compared to same quarter last year* 1=Very easy to 5=Very difficult	1=Much lower to 5=Much higher	
National average[1]	**2.91**	**1.96**	**1.73**	**2.6**	**2.6**	**2.9**
North Central region[2]	2.65	1.89	1.59	2.6	2.8	3.1
Corn	3.25	2.37	2.01	2.9	2.4	3.1
Wheat	1.52	1.44	1.39	2.6	2.9	2.9
Soybean	3.25	2.37	2.01	2.7	2.7	3.2
South Central region[2]	3.34	2.25	2.08	2.8	2.1	2.4
Corn	3.02	2.19	1.98	2.8	2.0	2.0
Wheat	3.13	2.18	2.08	3.0	2.3	2.7
Soybean	4.71	2.32	2.06	2.3	2.0	2.3

Rates are based on trucks with 80,000 lb weight limit
*Commodity averages based on truck rates for top producing states based on National Agricultural Statistics Service/USDA
[1]National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.
[2]Commodity rates per mile include the average of the top 3 producing states within the region.
Source: Transportation and Marketing Programs/AMS/USDA

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 12--Retail on-highway diesel prices*, week ending 05/09/05 (US$/gallon)

			Change from	
Region	**Location**	**Price**	**Week ago**	**Year ago**
I	East Coast	2.237	-0.027	0.559
	New England	2.389	-0.021	0.621
	Central Atlantic	2.342	-0.024	0.577
	Lower Atlantic	2.179	-0.028	0.546
II	Midwest	2.157	-0.037	0.490
III	Gulf Coast	2.173	-0.036	0.528
IV	Rocky Mountain	2.318	-0.037	0.390
V	West Coast	2.481	-0.049	0.226
	California	2.518	-0.043	0.162
Total	U.S.	2.227	-0.035	0.482

*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Grain Exports

Table 13--U.S. export balances (1,000 metric tons)

	Wheat						Corn	Soybeans	Total
Week ending 1/	HRW	SRW	HRS	SWW	DUR	All wheat			
4/28/2005	1,115	133	1,217	517	123	3,106	6,566	1,738	11,410
This week year ago	1,542	428	1,052	485	122	3,629	10,215	1,675	15,519
Cumulative exports-crop year 2/									
2004/05 YTD	8,774	3,160	7,268	4,518	635	24,356	30,145	26,487	80,988
2003/04 YTD	11,753	3,509	6,164	4,637	1,039	27,100	32,081	22,356	81,537
2004/05 as % of 2003/04	75	90	118	97	61	90	94	118	99
2003/04 Total	12,697	3,785	6,928	4,889	1,053	29,353	47,704	24,102	101,159
2002/03 Total	6,896	2,899	6,645	3,517	720	20,677	39,646	28,908	89,231

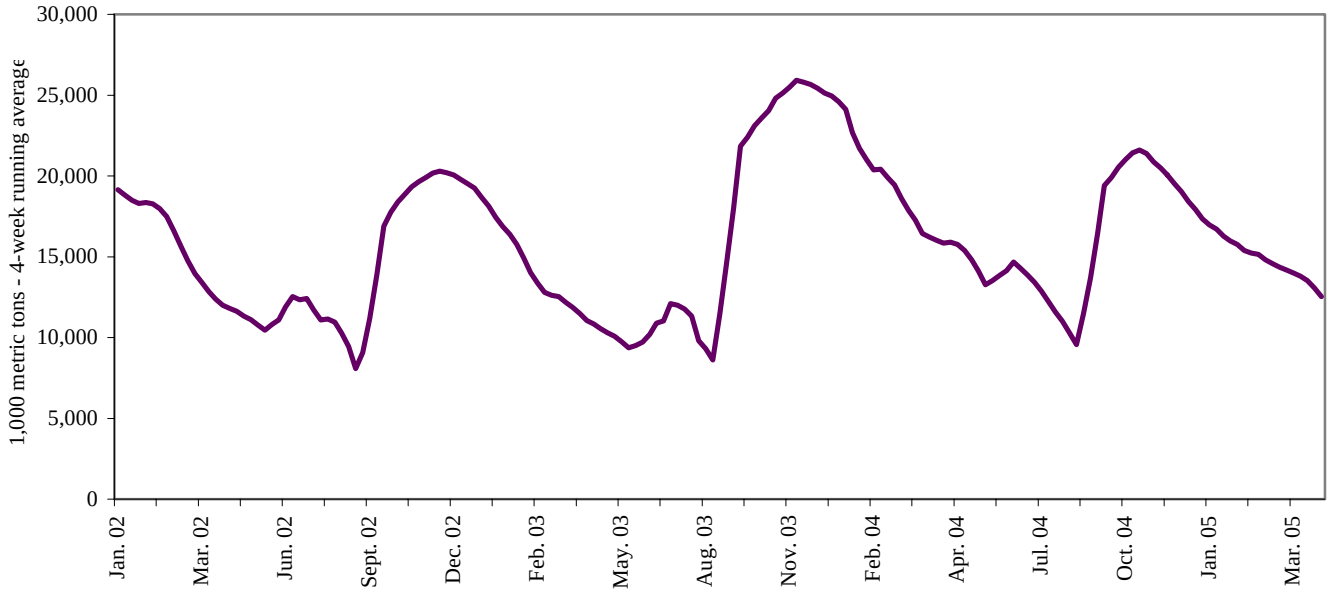
Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/ = Current outstanding unshipped export sales to date

2/ = New crop year in effect for corn and soybean sales

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 9

U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

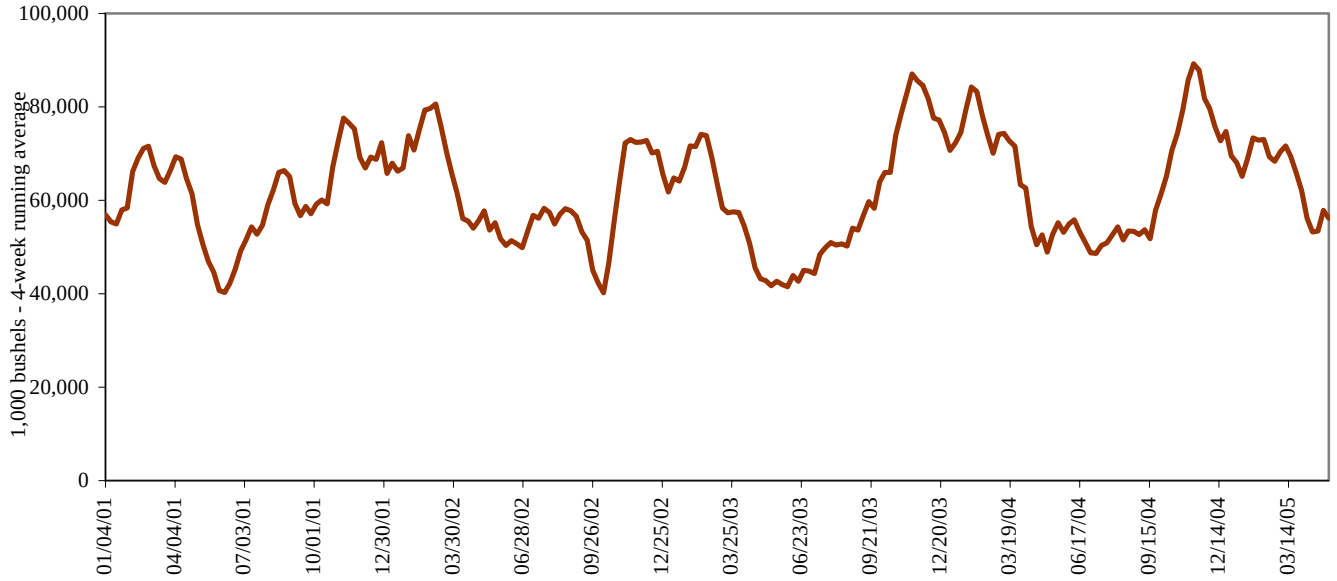
	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
05/05/05	139	172	18	29	505	137	86	5	0	329	671	91
2005 YTD	3,832	3,029	2,927	1,894	9,442	7,064	2,075	240	6	9,788	18,401	2,321
2004 YTD	4,033	3,526	1,690	2,659	11,414	5,523	3,559	49	7	9,250	19,596	3,615
2005 as % of 2004	95	86	173	71	83	128	58	486	86	106	94	64
2004 Total *	12,121	9,741	4,753	7,154	32,851	15,540	7,936	131	23	26,615	55,546	8,089

Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa); YTD: year-to-date; * includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10

U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa)

Ocean Transportation

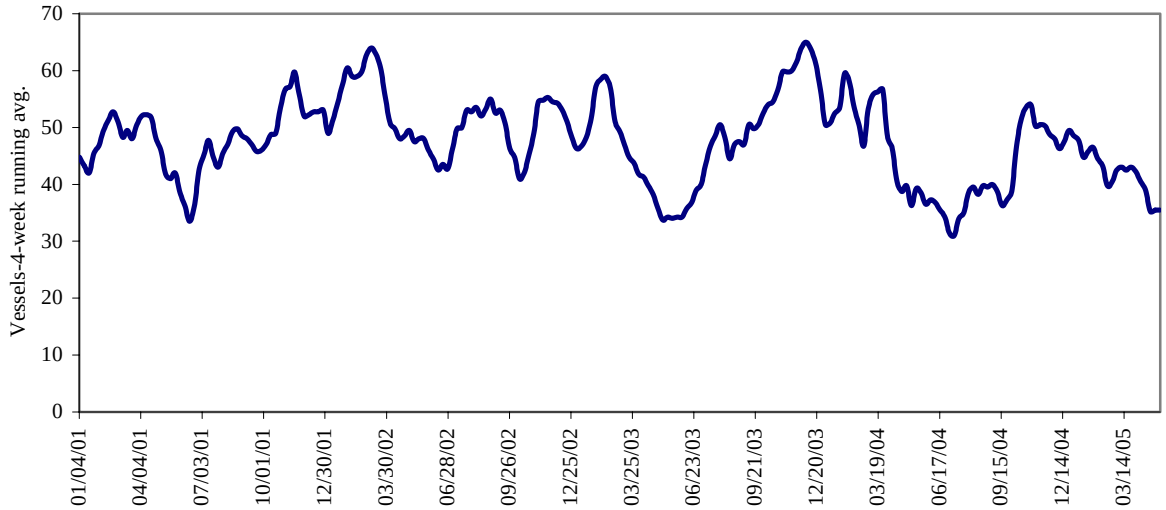
Table 15--Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest	Vancouver B.C.
Date	In port	Loaded 7-days	Due next 10-days	In port	In port
5/5/2005	15	32	44	6	7
4/28/2005	31	39	44	7	5
2004 range	(10..43)	(25..73)	(38..96)	(4..16)	(0..18)
2004 avg.	24	45	61	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11

Gulf Port grain vessel loading (past 7 days)



Source: Transportation & Marketing Programs/AMS/USDA

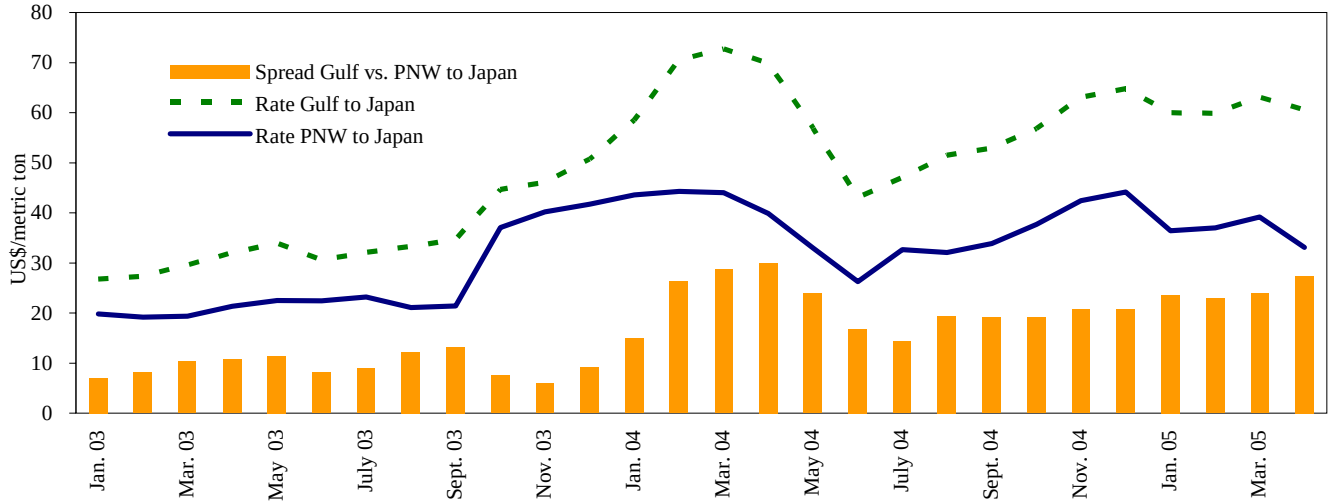
Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US$/metric ton)

Countries/ regions	2005 1st qtr	2004 1st qtr	Percent change	Countries/ regions	2005 1st qtr	2004 1st qtr	Percent change
Gulf to				**Pacific NW to**			
Japan	$60.18	$73.75	-18	Japan	---	---	---
China	$57.50	$46.63	23				
Taiwan	---	$68.00	---	**Argentina/Brazil to**			
N. Africa	$48.00	$46.25	4	N. Africa	$59.25	$61.07	-3
Med. Sea	---	$46.50	---	China	---	---	---

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12

Grain vessel rates, U.S. to Japan



Source: Baltic Exchange (www.balticexchange.com)

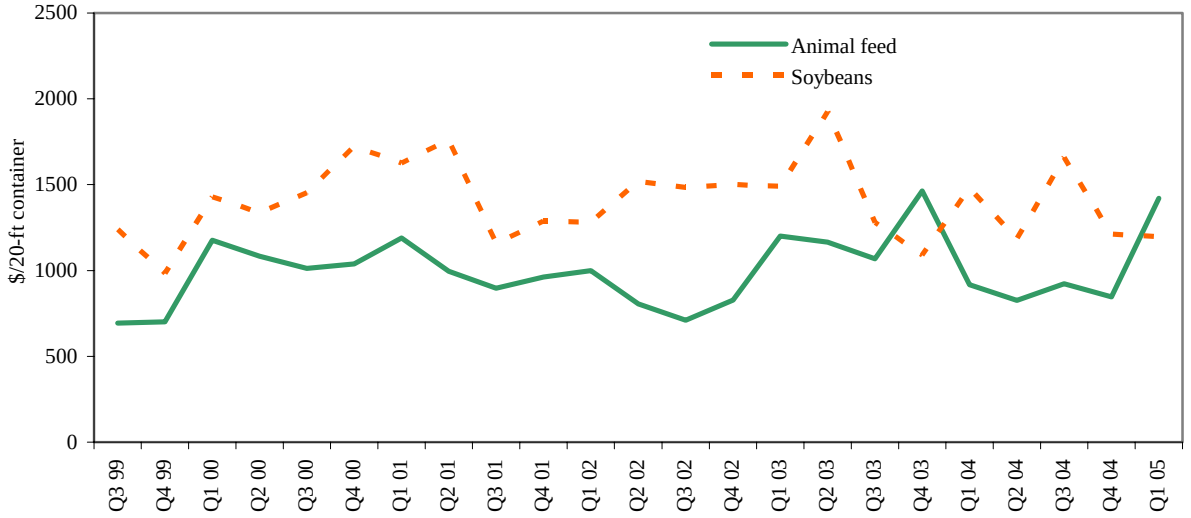
Table 17--Ocean freight rates for selected shipments, week ending 05/07/05

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate ($/metric ton)
U.S. Gulf	Haiti*	Wheat	May 11/21	8,300	85.77
U.S. Gulf	Honduras	Wheat	May 11/21	9,330	39.99
U.S. Gulf	Eritrea	Wheat	May 12/22	4,240	78.00
U.S. Gulf	Ethiopia	Wheat & Sorghum	Apr 21/ May 1	43,700	77.00
U.S. Gulf	Nicaragua	Wheat	May 10/20	11,399	53.13
U.S. Gulf	Nicaragua	Wheat	May 10/20	3,790	49.00
PNW	Kenya	Wheatflour	Mar 5/15	34,000	74.00
River Plate	Poland	Hvy Grain	Apr 20/30	30,000	64.00

Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option
*Most food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.
Source: Maritime Research Inc. (www.maritime-research.com)

Figure 13

Weighted average rates[1] for containerized shipments of animal feed and soybeans to selected Asian countries



[1]Animal Feed: Busan-Korea (22%), Kaohsiung-Taiwan (28%), Tokyo-Japan (38%), Hong Kong (9%), Bangkok-Thailand (3%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (81%), Tokyo-Japan (12%), Bangkok-Thailand (4%), Hong Kong (1%) Quarter 1, 2005.

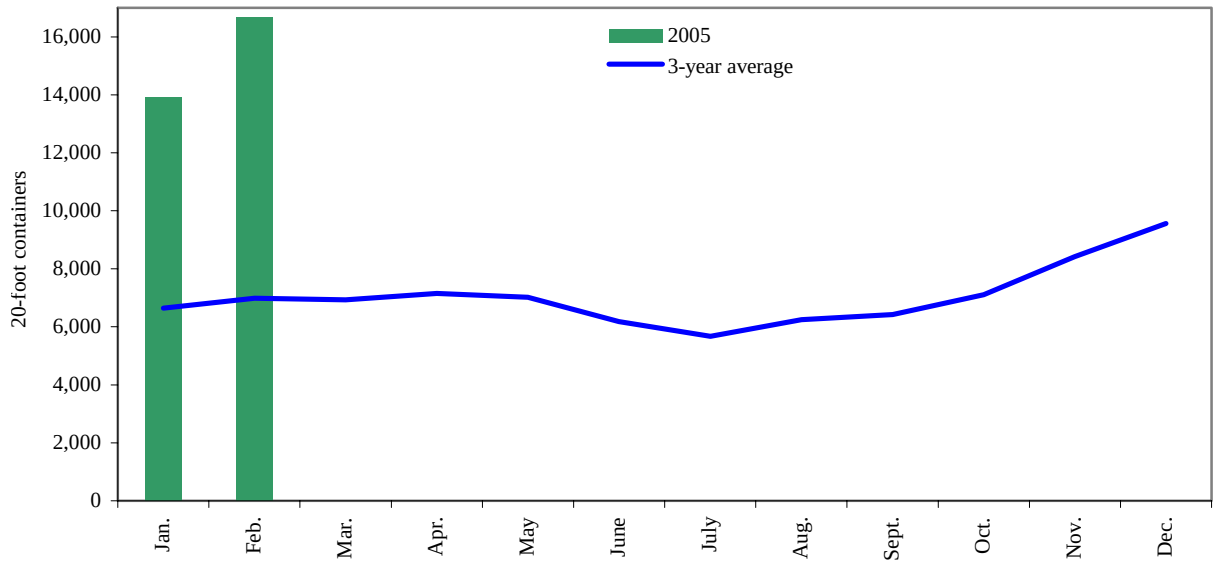
Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

The percentage of U.S. grain exported in containers was 3 percent in 2004.

Figure 14

Monthly shipments of containerized grain to Asia for 2005 compared with a 3-year average

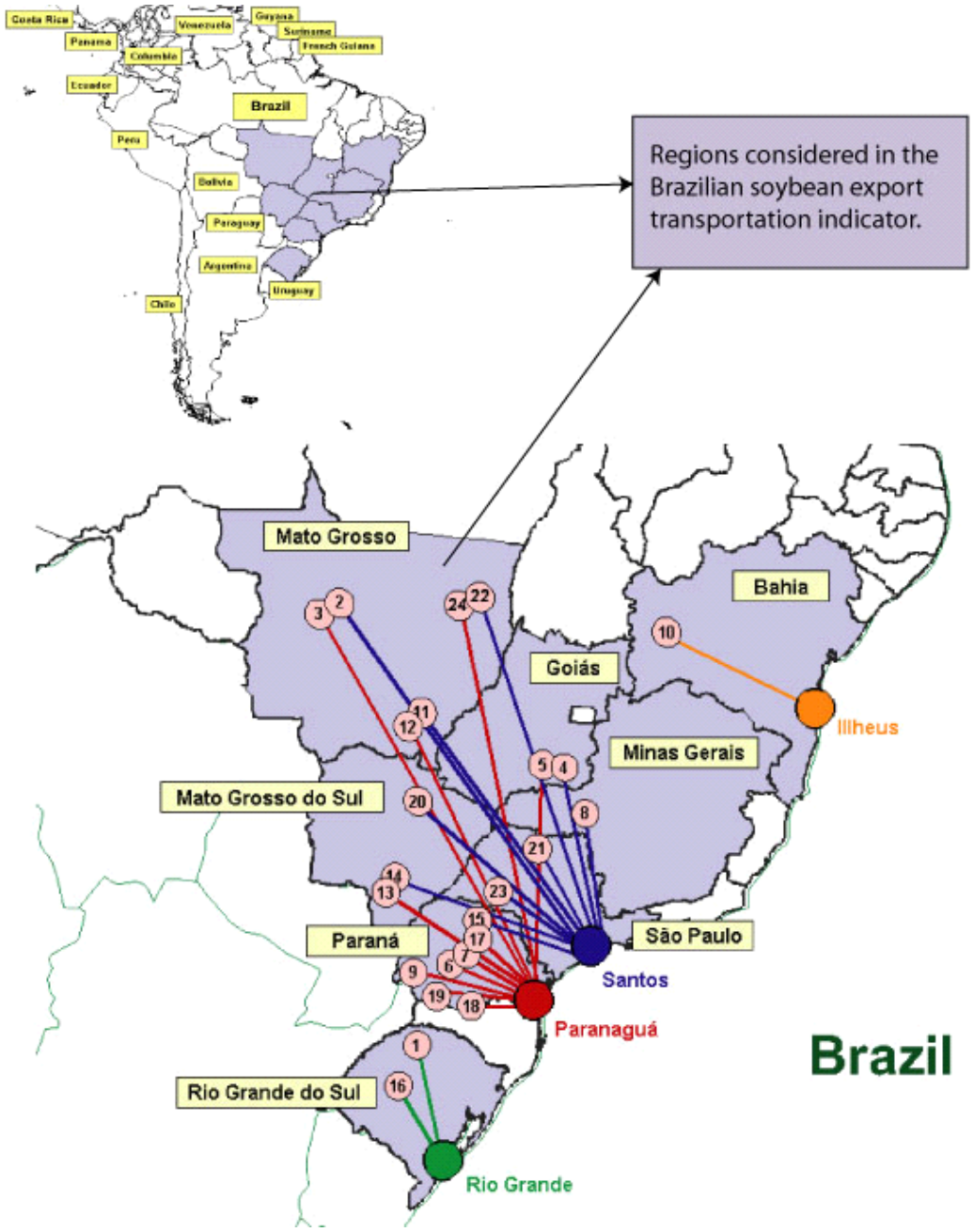


Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*

Note: PIERS data is available with a lag of approximately 40 days

Brazil Transportation

Figure 15
Routes and Regions considered in the Brazilian soybean export transportation indicator[1]



[1]Regions comprised 84 percent of Brazilian soybean production, 2003
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 18--Truck rates for selected Brazilian soybean export transportation routes, 1st quarter 2005

Route #	Origin[1] (reference city)	Destination	Distance (miles)[2]	Weight(%)[3]	Freight price (per 100 miles)[4]
1	Northwest RS[5](Cruz Alta)	Rio Grande	288	16.6	4.46
2	North MT(Sorriso)	Santos	1190	10.1	5.86
3	North MT(Sorriso)	Paranaguá	1262	9.5	5.54
4	South GO(Rio Verde)	Santos	587	7.0	4.40
5	South GO(Rio Verde)	Paranaguá	726	5.6	3.79
6	North Center PR(Londrina)	Paranaguá	268	4.4	7.19
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.22
8	Triangle MG(Uberaba)	Santos	339	3.8	7.28
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.83
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	6.53
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.18
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.22
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	5.78
14	Southwest MS(Maracaju)	Santos	652	2.9	5.84
15	West PR(Assis Chateaubriand)	Santos	550	2.5	6.18
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.03
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	6.00
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	10.20
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.39
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.39
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	6.38
22	Northeast MT(Canarana)	Santos	950	1.4	6.66
23	Assis SP(Palmital)	Santos	285	1.2	6.16
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	5.90
	Average		**626**	**100**	**5.67**

[1]Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

[2]Distance from the main city of the considered region to the mentioned ports

[3]The weight is directly proportional to the amount of production in each region

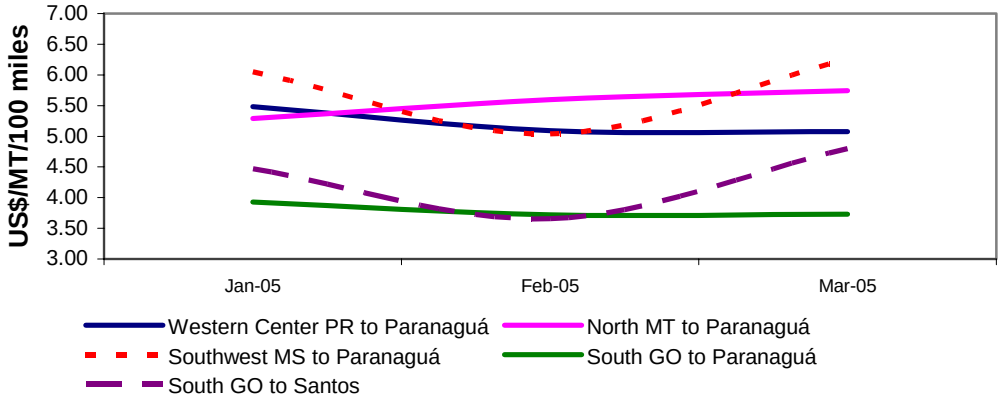
[4]US$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

[5]RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 16

Truck rates for selected Brazilian soybean export transportation routes



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Table 19--Monthly Brazilian soybean export truck transportation cost index

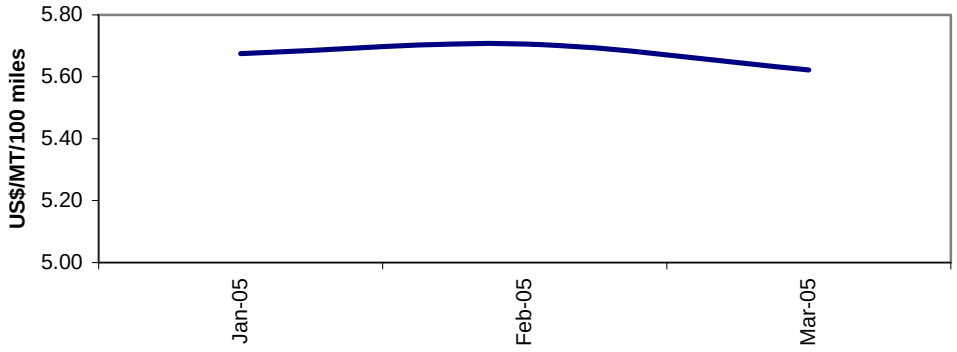
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08

*weighted average and quoted in US$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

Brazilian soybean export truck transportation weighted average prices, 2005



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US$/metric ton)*

Ports	2005 1st qtr
Santos	$45.53
Paranagua	$44.64
Rio Grande	$44.20

*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

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Related Websites

Agricultural Container Indicators	http://www.ams.usda.gov/tmd2/agci/
Ocean Rate Bulletin	http://www.ams.usda.gov/tmd/Ocean/index.asp